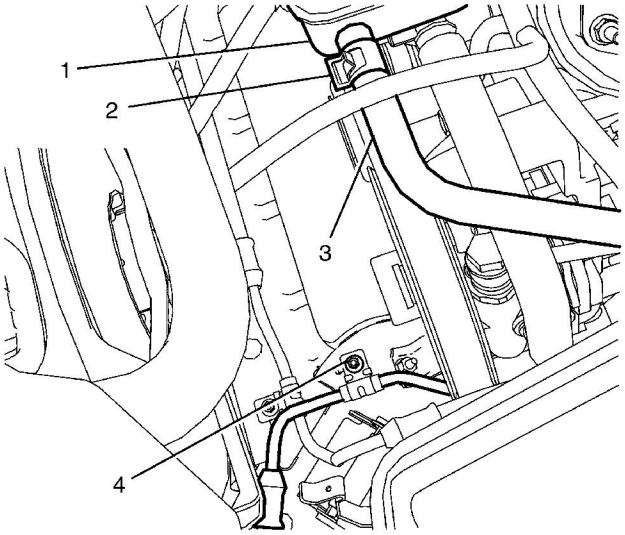
Power Steering Fluid Reservoir Inlet Hose Replacement (3.6L Engine)

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Remove the engine dress cover. Refer to Engine Cover Replacement.
2. Remove the upper section of the air box. Refer to Air Cleaner Assembly Replacement.
3. Remove the air inlet duct. Refer to Air Cleaner Inlet Duct Replacement.
4. Place a large suitable container under the vehicle in order to collect draining power steering fluid.



5. Remove the power steering fluid reservoir inlet pipe/hose bracket to subframe retaining bolt (4).

Note: The power steering fluid reservoir (1) must be plugged to prevent the entry of foreign particles into the power steering system.

6. Release the power steering fluid reservoir inlet pipe/hose spring clamp (2) and disconnect the power steering fluid reservoir inlet pipe/hose (3) from the power steering fluid reservoir (1).
7. Plug the power steering fluid reservoir (1).
8. Remove the front air deflector. Refer to Front Air Deflector Replacement.

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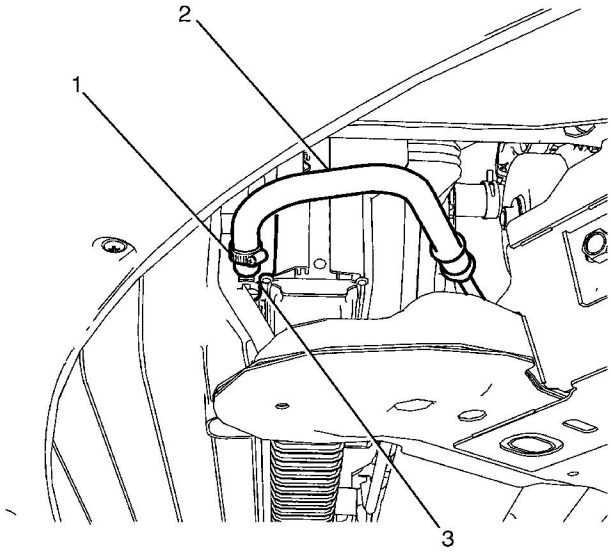
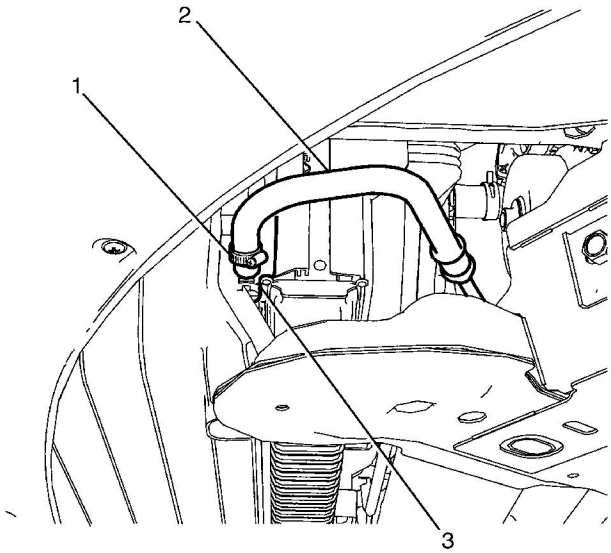


Note: The power steering cooler (3) must be plugged to prevent the entry of foreign particles into the power steering system.

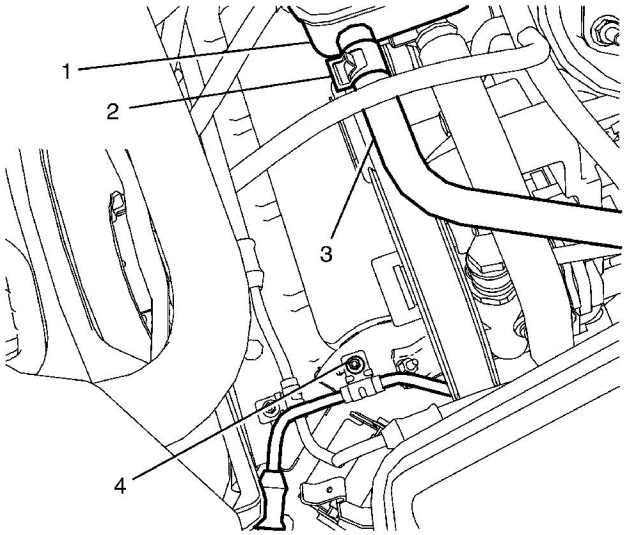
9. Release the power steering fluid reservoir inlet pipe/hose spring clamp (1) and disconnect the power steering fluid reservoir inlet hose (2) from the power steering cooler (3).
10. Plug the power steering cooler (3).
11. Plug the power steering fluid reservoir (1).
12. Remove the fluid reservoir inlet pipe/hose (2).

Installation Procedure

1. Install the power steering fluid reservoir inlet pipe/hose spring clamps to the power steering fluid reservoir inlet pipe/hose.



2. Position the power steering fluid reservoir inlet pipe/hose (2).
3. Remove the plug from the power steering cooler (3).
4. Release the power steering fluid reservoir inlet pipe/hose spring clamp (1) and connect the power steering fluid reservoir inlet pipe/hose (2) to the power steering cooler (3).
5. Install the front air deflector. Refer to Front Air Deflector Replacement.
6. Remove the safety stands.
7. Lower the vehicle to the ground.



8. Remove the plug from the power steering fluid reservoir (1).
9. Release the power steering fluid reservoir inlet pipe/hose spring clamp (2) and connect the power steering fluid reservoir inlet hose (3) to the power steering fluid reservoir (1).

Caution: Refer to Fastener Caution in the Preface section.

10. Install the power steering fluid reservoir inlet pipe/hose bracket to subframe retaining bolt (4) and tighten to **9 N·m (80 lb in)**.
11. Install the air inlet duct. Refer to Air Cleaner Inlet Duct Replacement.
12. Install the upper section of the air box. Refer to Air Cleaner Assembly Replacement.

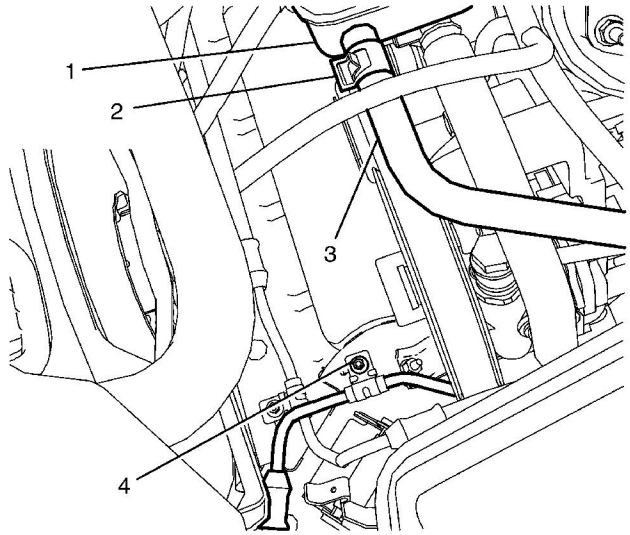
Caution: When adding fluid or making a complete fluid change, always use the proper power steering fluid. Failure to use the proper fluid will cause hose and seal damage and fluid leaks.

13. Fill power steering fluid reservoir with fluid to FULL level mark on the fluid reservoir.
14. Bleed the power steering system. Refer to Power Steering System Bleeding.
15. Check for power steering fluid leaks.
16. Remove the container from under the vehicle.
17. Install the engine dress cover. Refer to Engine Cover Replacement.

Power Steering Fluid Reservoir Inlet Hose Replacement (6.0L Engine)

Removal Procedure

1. Remove the engine dress cover. Refer to Engine Cover Replacement.
2. Remove the mass air flow (MAF) sensor. Refer to Mass Airflow Sensor/Intake Air Temperature Sensor Replacement.
3. Remove the upper section of the air box. Refer to Air Cleaner Assembly Replacement.
4. Place a large suitable container under the vehicle in order to collect draining fluid.



5. Remove the power steering fluid reservoir inlet pipe/hose bracket to subframe retaining bolt (4).

Important: The power steering fluid reservoir (1) must be plugged to prevent the entry of foreign particles into the power steering system.

6. Release the power steering fluid reservoir inlet pipe/hose spring clamp (2) and disconnect the power steering fluid reservoir inlet pipe/hose (3) from the power steering fluid reservoir (1).
7. Plug the power steering fluid reservoir (1).

Warning: Refer to Fastener Caution in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

8. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
9. Remove the front air deflector. Refer to Front Air Deflector Replacement.

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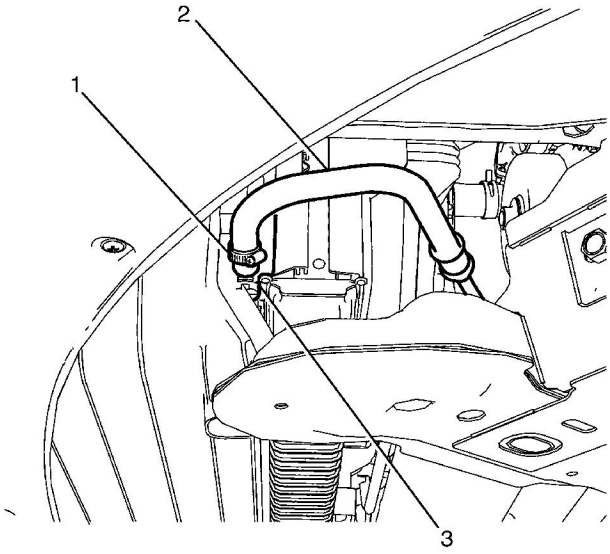
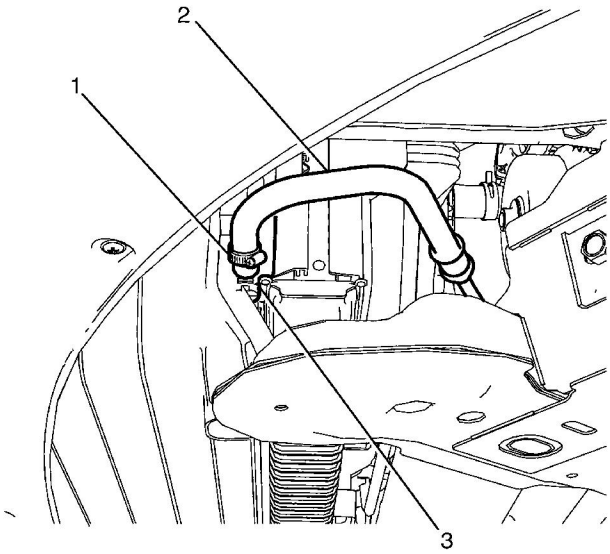


Important: The power steering cooler (3) must be plugged to prevent the entry of foreign particles into the power steering system.

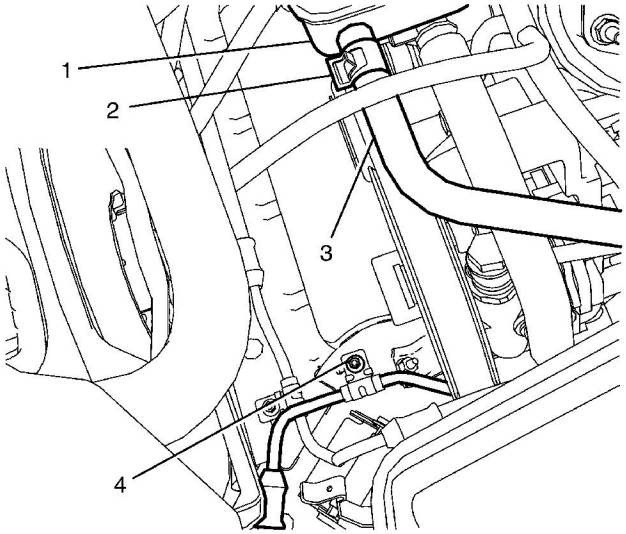
10. Release the power steering fluid reservoir inlet pipe/hose spring clamp (1) and disconnect the power steering fluid reservoir inlet pipe/hose (2) from the power steering cooler (3).
11. Plug the power steering cooler (3).
12. Remove the fluid reservoir inlet pipe/hose (2).

Installation Procedure

1. Install the power steering fluid reservoir inlet pipe/hose spring clamps to the power steering fluid reservoir inlet pipe/hose.



2. Install the power steering fluid reservoir inlet pipe/hose (2).
3. Remove the plug from the power steering cooler (3).
4. Release the power steering fluid reservoir inlet pipe/hose spring clamp (1) and connect the power steering fluid reservoir inlet pipe/hose (2) to the power steering cooler (3).
5. Install the front air deflector. Refer to Front Air Deflector Replacement.
6. Remove the safety stands.
7. Lower the vehicle to the ground.



8. Remove the plug from the power steering fluid reservoir (1).
9. Release the power steering fluid reservoir inlet pipe/hose spring clamp (2) and connect the power steering fluid reservoir inlet pipe/hose (3) to the power steering fluid reservoir (1).

Caution: Refer to Fastener Caution in the Preface section.

10. Install the power steering fluid reservoir inlet pipe/hose bracket to subframe retaining bolt (4).

Tighten
Tighten the bolt to 9 N·m (80 lb in).

11. Install the mass air flow (MAF) sensor. Refer to Mass Airflow Sensor/Intake Air Temperature Sensor Replacement.
12. Install the upper section of the air box. Refer to Air Cleaner Assembly Replacement.

Caution: When adding fluid or making a complete fluid change, always use the proper power steering fluid. Failure to use the proper fluid will cause hose and seal damage and fluid leaks.

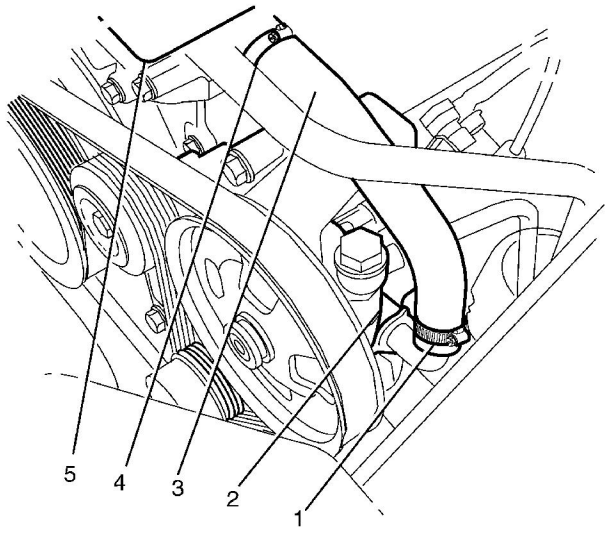
13. Fill power steering fluid reservoir with fluid to the MAX level mark on the reservoir.
14. Bleed the power steering system. Refer to Power Steering System Bleeding.
15. Check for power steering fluid leaks.
16. Remove the container from under the vehicle.
17. Install the engine dress cover. Refer to Engine Cover Replacement.

Power Steering Fluid Reservoir Outlet Hose Replacement (3.6L Engine)

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

1. Remove the engine dress cover. Refer to Engine Cover Replacement.
2. Place a large suitable container under the vehicle in order to collect draining fluid.



3. Release the power steering fluid reservoir outlet hose worm drive clamp (4).

Important: The power steering fluid reservoir (5) must be plugged to prevent the entry of foreign particles into the power steering system.

4. Disconnect the power steering fluid reservoir outlet hose (3) from the power steering fluid reservoir (5).
5. Plug the power steering fluid reservoir (5).
6. Release the power steering fluid reservoir outlet hose worm drive clamp (1).

Important: The power steering pump (2) must be plugged to prevent the entry of foreign particles into the power steering system.

7. Remove the power steering fluid reservoir outlet hose (3) from the power steering pump (2).
8. Plug the power steering pump (2).
9. Inspect all parts for wear and damage.

Installation Procedure

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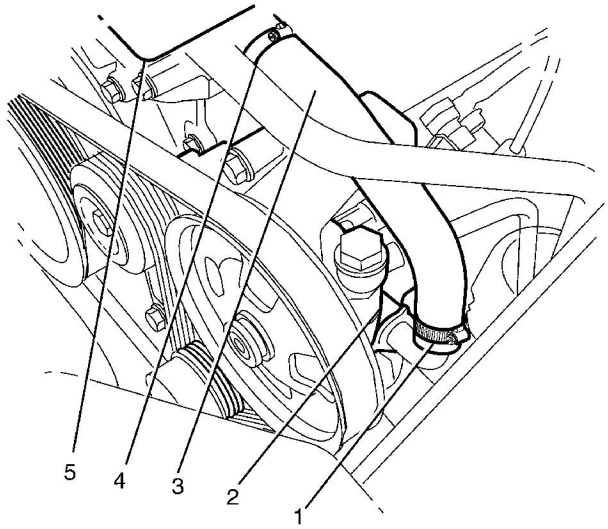


1. Install the power steering fluid reservoir outlet hose worm drive clamps (1) and (4) to power steering fluid reservoir outlet pipe/hose (3).
2. Remove the plug from the power steering pump (2).
3. Install the fluid reservoir outlet hose (3) to the power steering pump (2).

Caution: Refer to Fastener Caution in the Preface section.

4. Tighten the power steering fluid reservoir outlet hose worm drive clamp (1).

Tighten
Tighten the worm drive clamp.

5. Remove the plug from the power steering fluid reservoir (5).
6. Connect the fluid reservoir outlet hose (3) to the power steering fluid reservoir (5).
7. Tighten the power steering fluid reservoir outlet hose worm drive clamp (4).

Tighten
Tighten the worm drive clamp.

Caution: When adding fluid or making a complete fluid change, always use the proper power steering fluid. Failure to use the proper fluid will cause hose and seal damage and fluid leaks.

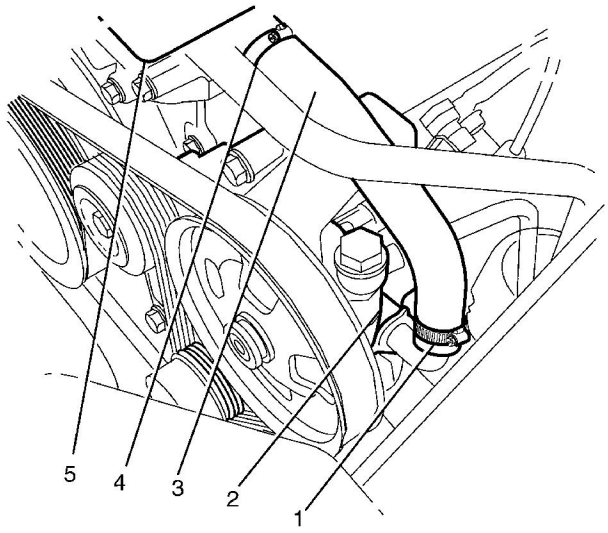
8. Fill power steering fluid reservoir with fluid to the MAX level mark on the reservoir.
9. Bleed the power steering system. Refer to Power Steering System Bleeding.
10. Check for power steering fluid leaks.
11. Remove the container from under the vehicle.
12. Install the engine dress cover. Refer to Engine Cover Replacement.

Power Steering Fluid Reservoir Outlet Hose Replacement (6.0L Engine)

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

1. Remove the engine dress cover. Refer to Engine Cover Replacement.
2. Place a large suitable container under the vehicle in order to collect draining fluid.



3. Release the power steering fluid reservoir outlet hose worm drive clamp (4).

Important: The power steering fluid reservoir (5) must be plugged to prevent the entry of foreign particles into the power steering system.

4. Disconnect the power steering fluid reservoir outlet hose (3) from the power steering fluid reservoir (5).
5. Plug the power steering fluid reservoir (5).
6. Release the power steering fluid reservoir outlet hose worm drive clamp (1).

Important: The power steering pump (2) must be plugged to prevent the entry of foreign particles into the power steering system.

7. Remove the power steering fluid reservoir outlet hose (3) from the power steering pump (2).
8. Plug the power steering pump (2).
9. Inspect all parts for wear and damage.

Installation Procedure

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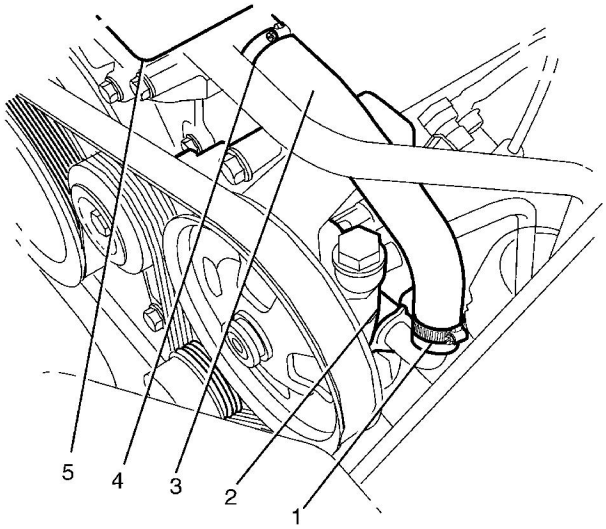


1. Install the power steering fluid reservoir outlet hose worm drive clamps (1) and (4) to power steering fluid reservoir outlet pipe/hose (3).
2. Remove the plug from the power steering pump (2).
3. Install the fluid reservoir outlet hose (3) to the power steering pump (2).

Caution: Refer to Fastener Caution in the Preface section.

4. Tighten the power steering fluid reservoir outlet hose worm drive clamp (1).

Tighten
Tighten the worm drive clamp.

5. Remove the plug from the power steering fluid reservoir (5).
6. Connect the fluid reservoir outlet hose (3) to the power steering fluid reservoir (5).
7. Tighten the power steering fluid reservoir outlet hose worm drive clamp (4).

Tighten
Tighten the worm drive clamp.

Caution: When adding fluid or making a complete fluid change, always use the proper power steering fluid. Failure to use the proper fluid will cause hose and seal damage and fluid leaks.

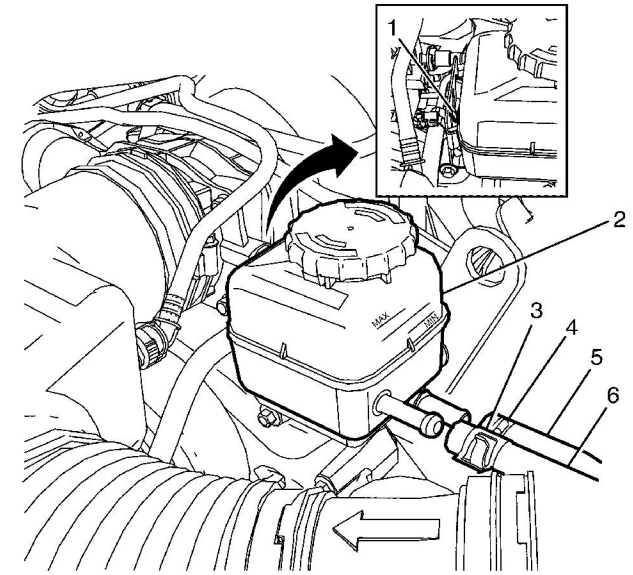
8. Fill power steering fluid reservoir with fluid to the MAX level mark on the reservoir.
9. Bleed the power steering system. Refer to Power Steering System Bleeding.
10. Check for power steering fluid leaks.
11. Remove the container from under the vehicle.
12. Install the engine dress cover. Refer to Engine Cover Replacement.

Power Steering Fluid Reservoir Replacement (3.6L Engine)

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

1. Remove the engine dress cover. Refer to Engine Cover Replacement.
2. Place a large suitable container under the power steering fluid reservoir Inlet and outlet in order to collect draining fluid.



Note: The power steering fluid reservoir inlet pipe/hose (5) must be plugged to prevent the entry of foreign particles into the power steering system.

3. Release the power steering fluid reservoir inlet pipe/hose worm drive clamp (4) and disconnect the power steering fluid reservoir inlet pipe/hose (5) from the power steering fluid reservoir (2).
4. Plug the power steering fluid reservoir inlet pipe/hose (5).
5. Release the power steering fluid reservoir outlet pipe/hose spring clamp (3).

Note: The power steering fluid reservoir outlet pipe/hose (6) must be plugged to prevent the entry of foreign particles into the power steering system.

6. Disconnect the power steering fluid reservoir outlet pipe/hose (6) from the power steering fluid reservoir (2).
7. Plug the power steering fluid reservoir outlet pipe/hose (6).

Note: The power steering fluid reservoir bracket locking tang (1) must be released before removing the power steering fluid reservoir (2).

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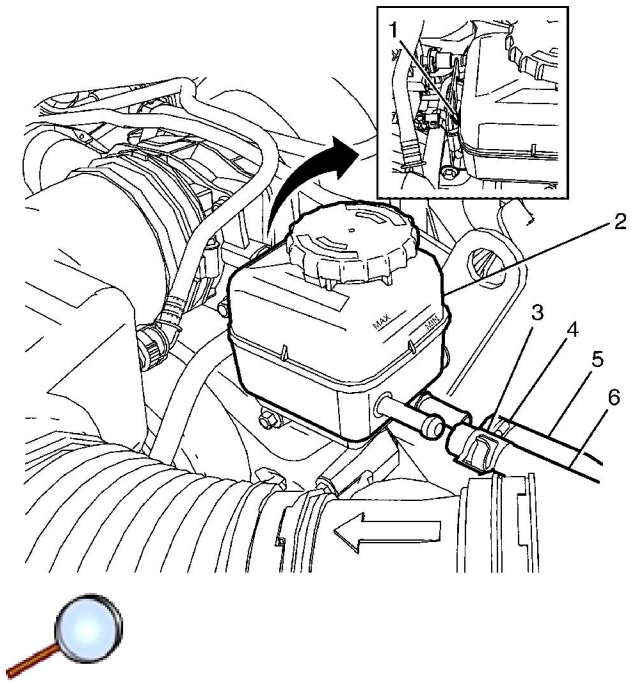
8. Remove the power steering fluid reservoir (2).

Installation Procedure



Note: The power steering fluid reservoir bracket locking tang (1) must be located correctly.

1. Install the power steering fluid reservoir (2).
2. Remove the plug from the power steering fluid reservoir outlet pipe/hose (6).
3. Connect the power steering fluid reservoir outlet pipe/hose (6) to the power steering fluid reservoir (2).
4. Tighten the power steering fluid reservoir outlet pipe/hose spring clamp (3).
5. Remove the plug from the power steering fluid reservoir inlet pipe/hose (5).
6. Release the power steering fluid reservoir inlet pipe/hose worm drive clamp (4) and connect the power steering fluid reservoir inlet pipe/hose (5) to the power steering fluid reservoir (2).

Caution: When adding fluid or making a complete fluid change, always use the proper power steering fluid. Failure to use the proper fluid will cause hose and seal damage and fluid leaks.

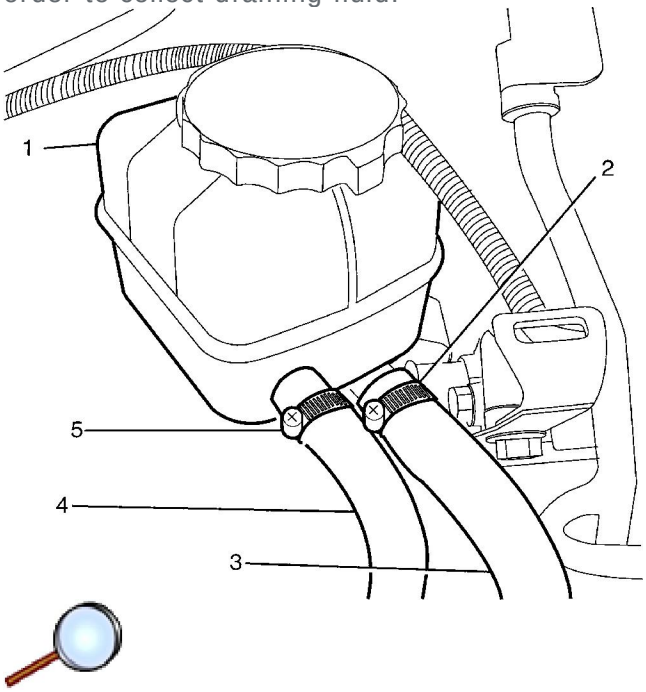
7. Fill power steering fluid reservoir with fluid to the MAX level mark on the reservoir.
8. Bleed the power steering system. Refer to Power Steering System Bleeding.
9. Check for power steering fluid leaks.
10. Install the engine dress cover. Refer to Engine Cover Replacement.

Power Steering Fluid Reservoir Replacement (6.0L Engine)

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

1. Remove the engine dress cover. Refer to Engine Cover Replacement
2. Place a large suitable container under the power steering fluid reservoir Inlet and outlet in order to collect draining fluid.



Note: The hose must be plugged to prevent the entry of foreign particles into the power steering system.

3. Release the power steering fluid reservoir inlet pipe/hose spring clamp (5) and disconnect the power steering fluid reservoir inlet pipe/hose (4) from the power steering reservoir (1). Plug the hose.
4. Release the power steering fluid reservoir outlet pipe/hose worm drive clamp (2).

Note: The hose must be plugged to prevent the entry of foreign particles into the power steering system.

5. Disconnect the power steering fluid reservoir outlet pipe/hose (3) from the power steering reservoir.
6. Plug the hose.

Note: The power steering fluid reservoir bracket locking tang must be released before removing the power steering reservoir.

7. Remove the power steering fluid reservoir (1) from the engine bracket.

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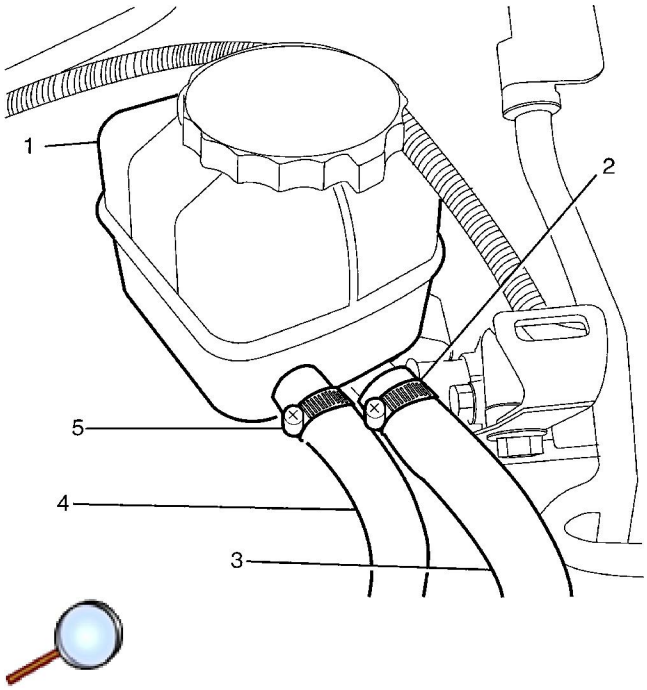
Installation Procedure



1. Install the power steering fluid reservoir (1) to the engine bracket.
2. Remove the plug from the power steering fluid reservoir outlet pipe/hose (4).
3. Connect the power steering fluid reservoir outlet pipe/hose (4) to the power steering reservoir (1).

Caution: Refer to Fastener Caution in the Preface section.

4. Tighten the power steering fluid reservoir outlet pipe/hose worm drive clamp (2).
5. Remove the plug from the power steering fluid reservoir inlet pipe/hose (3).
6. Release the power steering fluid reservoir inlet pipe/hose spring clamp (5) and connect the power steering fluid reservoir inlet pipe/hose (3) to the power steering reservoir (1).

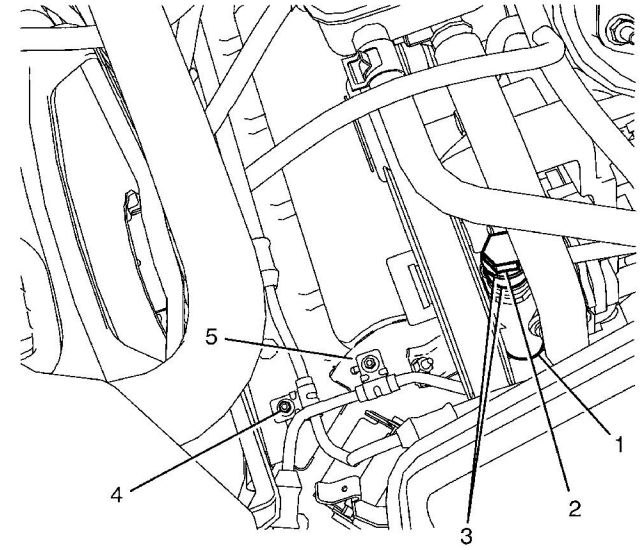
Caution: When adding fluid or making a complete fluid change, always use the proper power steering fluid. Failure to use the proper fluid will cause hose and seal damage and fluid leaks.

7. Fill power steering fluid reservoir with fluid to the MAX level mark on the reservoir.
8. Bleed the power steering system. Refer to Power Steering System Bleeding.
9. Check for power steering fluid leaks.
10. Install the engine dress cover. Refer to Engine Cover Replacement.

Power Steering Gear Inlet Pipe/Hose Replacement (3.6L Engine)

Removal Procedure

1. Remove the engine dress cover. Refer to Engine Cover Replacement.
2. Remove the upper section of the air box. Refer to Air Cleaner Assembly Replacement.
3. Remove the air inlet duct. Refer to Air Cleaner Inlet Duct Replacement.
4. Place a large suitable container under the vehicle in order to collect draining fluid.



5. Remove the power steering gear inlet pipe/hose bracket to subframe retaining bolt (4).

   Important: Remove the power steering fluid reservoir inlet hose to subframe retaining bolt (5) to aid in removing the power steering gear inlet pipe/hose.

6. Remove the power steering fluid reservoir inlet hose to subframe retaining bolt (5).

   Important: The power steering pump (1) must be plugged to prevent the entry of foreign particles into the power steering system.

   Important: The copper sealing washers (3) must be discarded after removal.

7. Remove the power steering gear inlet pipe/hose to power steering pump retaining banjo bolt (2) and copper sealing washers (3).

   Discard the washers.

8. Plug the power steering pump (1).

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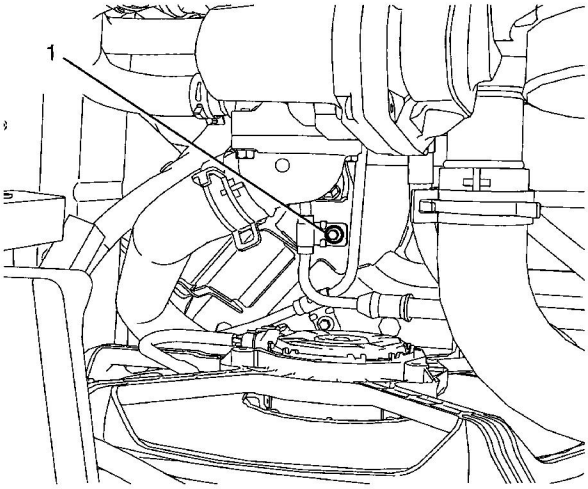
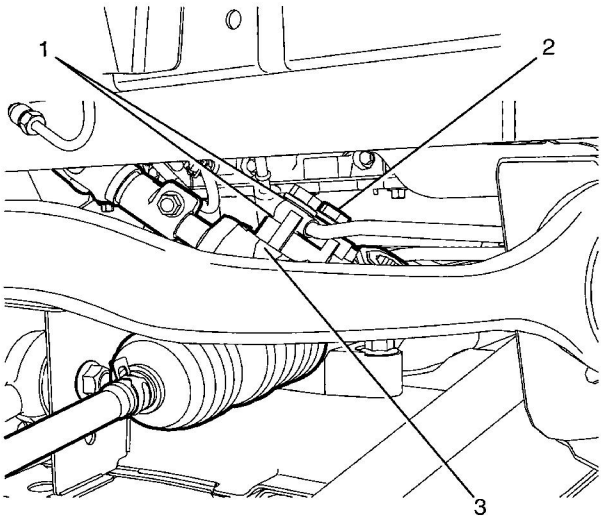


9. Remove the power steering gear inlet pipe/hose bracket to subframe retaining bolt (1).

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

10. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
11. Remove the front air deflector. Refer to Front Air Deflector Replacement.



Important: The power steering gear (3) must be plugged to prevent the entry of foreign

particles into the power steering system.

Important: The copper sealing washers (1) must be discarded after removal.

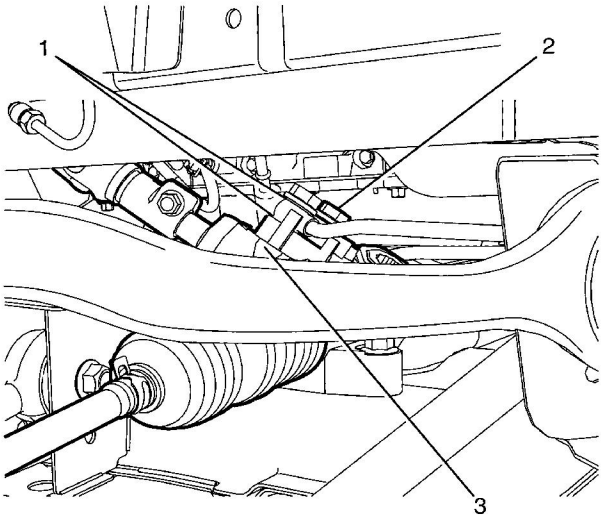
12. Remove the power steering gear inlet pipe/hose to power steering gear retaining banjo bolt (2) and copper sealing washers (1).

    Discard the washers.

13. Plug the power steering gear (3).
14. Remove the power steering gear inlet pipe/hose.

Installation Procedure

1. Position the power steering gear inlet pipe/hose.



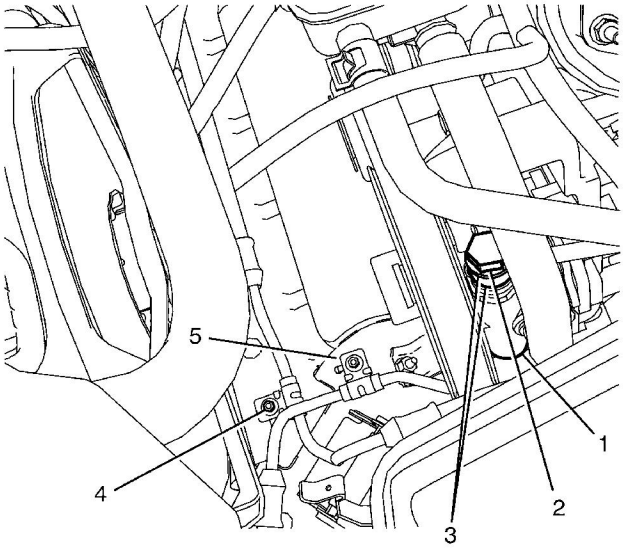
2. Remove the plug from the power steering gear (3).

   Caution: Refer to Fastener Caution in the Preface section.

3. Install the power steering gear inlet pipe/hose to power steering gear retaining banjo bolt (2) and NEW copper sealing washers (1).

   Tighten
   Tighten the banjo bolt to 58 N·m (42 lb ft).

4. Install the front air deflector. Refer to Front Air Deflector Replacement.
5. Remove the safety stands.
6. Lower the vehicle to the ground.



7. Remove the plug from the power steering pump (1).
8. Install the power steering gear inlet pipe/hose to power steering pump retaining banjo bolt (2) and NEW copper sealing washers (3).

   Tighten
   Tighten the banjo bolt to 48 N·m (35 lb ft).

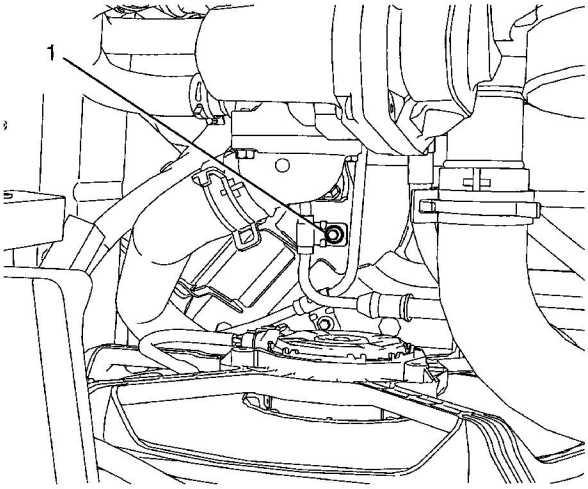
9. Install the power steering gear inlet pipe/hose bracket to subframe retaining bolt (4).

   Tighten
   Tighten the bolt to 9 N·m (80 lb in).

10. Install the power steering fluid reservoir inlet pipe/hose bracket to subframe retaining bolt (5).

    Tighten
    Tighten the bolt to 9 N·m (80 lb in).

11. Remove the container from under the vehicle.



12. Install the power steering gear inlet pipe/hose bracket to subframe retaining bolt (1).

    Tighten
    Tighten the bolt to 9 N·m (80 lb in).

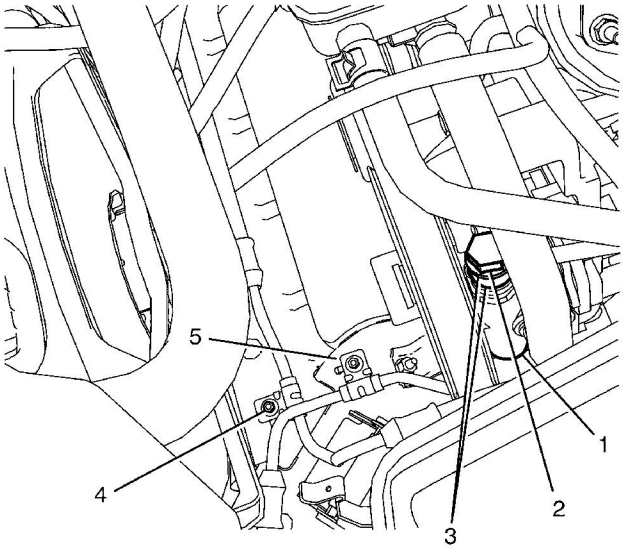
    Caution: When adding fluid or making a complete fluid change, always use the proper power steering fluid. Failure to use the proper fluid will cause hose and seal damage and fluid leaks.

13. Fill power steering fluid reservoir with fluid to the MAX level mark on the reservoir.
14. Bleed the power steering system. Refer to Power Steering System Bleeding.
15. Check for power steering fluid leaks.
16. Install the engine dress cover. Refer to Engine Cover Replacement.
17. Install the air inlet duct. Refer to Air Cleaner Inlet Duct Replacement.
18. Install the upper section of the air box. Refer to Air Cleaner Assembly Replacement.

Power Steering Gear Inlet Pipe/Hose Replacement (6.0L Engine)

Removal Procedure

1. Remove the engine dress cover. Refer to Engine Cover Replacement.
2. Remove the air intake duct. Refer to Air Cleaner Inlet Duct Replacement.
3. Remove the mass air flow (MAF) sensor. Refer to Mass Airflow Sensor/Intake Air Temperature Sensor Replacement.
4. Remove the upper section of the air box. Refer to Air Cleaner Assembly Replacement.
5. Place a large suitable container under the vehicle in order to collect draining fluid.



6. Remove the power steering gear inlet pipe/hose bracket to subframe retaining bolt (4).

   Important: Remove the power steering fluid reservoir inlet hose to subframe retaining bolt (5) to aid in removing the power steering gear inlet pipe/hose.

7. Remove the power steering fluid reservoir inlet hose to subframe retaining bolt (5).

   Important: The power steering pump (1) must be plugged to prevent the entry of foreign particles into the power steering system.

   Important: The copper sealing washers (3) must be discarded after removal.

8. Remove the power steering gear inlet pipe/hose to power steering pump retaining banjo bolt (2) and copper sealing washers (3).

   Plug the power steering pump (1).

   Discard the washers.

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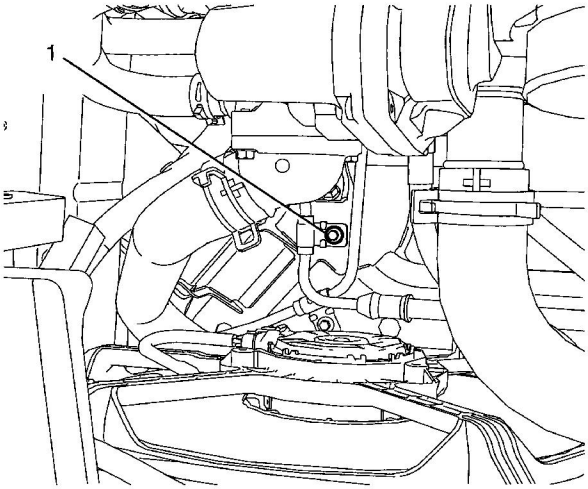
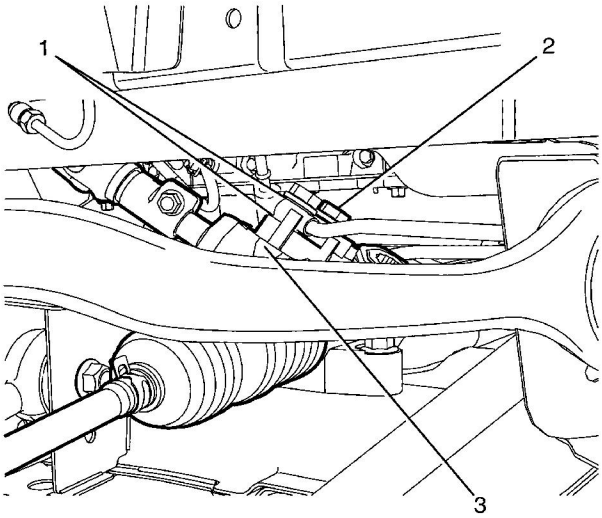


9. Remove the power steering gear inlet pipe/hose bracket to subframe retaining bolt (1).

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

10. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
11. Remove the splash shield. Refer to Engine Splash Shield Replacement.



Important: The power steering gear (3) must be plugged to prevent the entry of foreign particles into the power steering system.

Important: The copper sealing washers (1) must be discarded after removal.

12. Remove the power steering gear inlet pipe/hose to power steering gear retaining banjo bolt (2) and copper sealing washers (1).

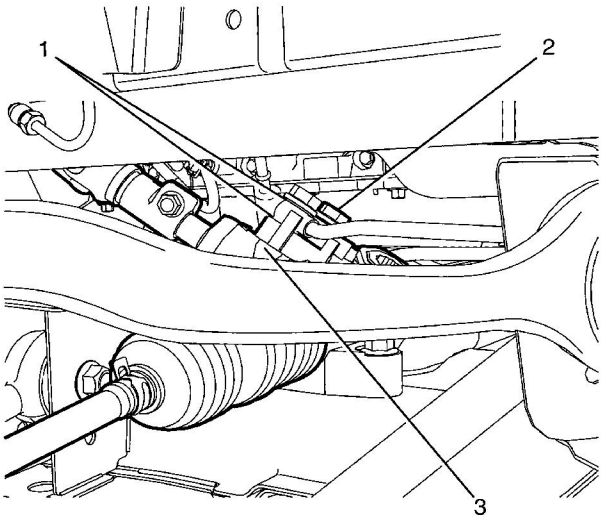
    Plug the power steering gear (3).

    Discard the washers.

13. Remove the power steering gear inlet pipe/hose.

Installation Procedure

1. Install the power steering gear inlet pipe/hose.



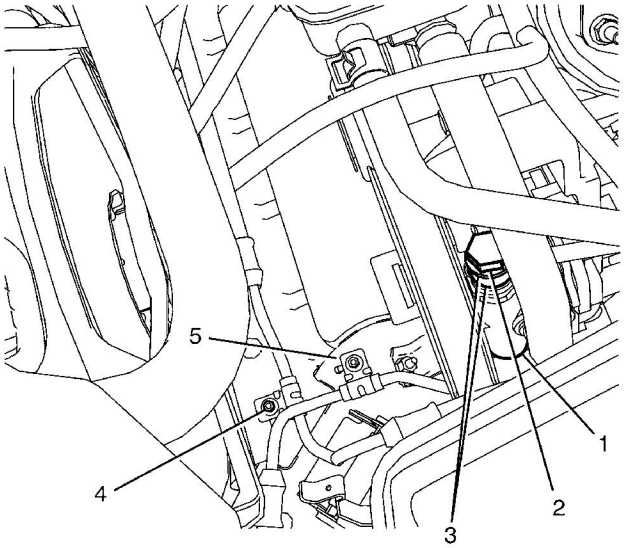
2. Remove the plug from the power steering gear (3).

   Caution: Refer to Fastener Caution in the Preface section.

3. Install the power steering gear inlet pipe/hose to power steering gear retaining banjo bolt (2) and NEW copper sealing washers (1).

   Tighten
   Tighten the banjo bolt to 58 N·m (42 lb ft).

4. Install the splash shield. Refer to Engine Splash Shield Replacement.
5. Remove the safety stands.
6. Lower the vehicle to the ground.



7. Remove the plug from the power steering pump (1).
8. Install the power steering gear inlet pipe/hose to power steering pump retaining banjo bolt (2) and NEW copper sealing washers (3).

   Tighten
   Tighten the banjo bolt to 48 N·m (35 lb ft).

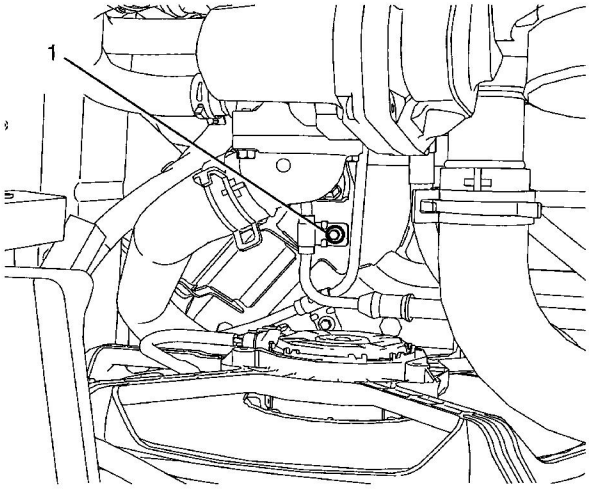
9. Install the power steering gear inlet pipe/hose bracket to subframe retaining bolt (4).

   Tighten
   Tighten the bolt to 9 N·m (80 lb in).

10. Install the power steering fluid reservoir inlet pipe/hose to subframe retaining bolt (5).

    Tighten
    Tighten the bolt to 9 N·m (80 lb in).

11. Remove the container from under the vehicle.



12. Install the power steering gear inlet pipe/hose bracket to subframe retaining bolt (1).

    Tighten
    Tighten the bolt to 90 N·m (80 lb in).

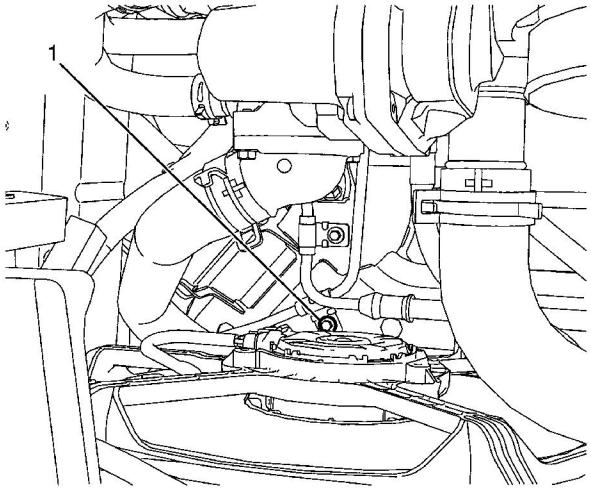
    Caution: When adding fluid or making a complete fluid change, always use the proper power steering fluid. Failure to use the proper fluid will cause hose and seal damage and fluid leaks.

13. Fill power steering fluid reservoir with fluid to the MAX level mark on the reservoir.
14. Bleed the power steering system. Refer to Power Steering System Bleeding.
15. Check for power steering fluid leaks.
16. Install the upper section of the air box. Refer to Air Cleaner Assembly Replacement.
17. Install the mass air flow (MAF) sensor. Refer to Mass Airflow Sensor/Intake Air Temperature Sensor Replacement.
18. Install the engine dress cover. Refer to Engine Cover Replacement.

Power Steering Gear Outlet Pipe/Hose Replacement (3.6L Engine)

Removal Procedure

1. Remove the engine dress cover. Refer to Engine Cover Replacement.
2. Remove the air inlet duct. Refer to Air Cleaner Inlet Duct Replacement.



3. Remove the power steering gear outlet pipe/hose bracket to subframe retaining bolt (1).

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

4. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
5. Remove the front air deflector. Refer to Front Air Deflector Replacement.
6. Remove the engine splash shield. Refer to Engine Splash Shield Replacement.
7. Place a large suitable container under the vehicle.

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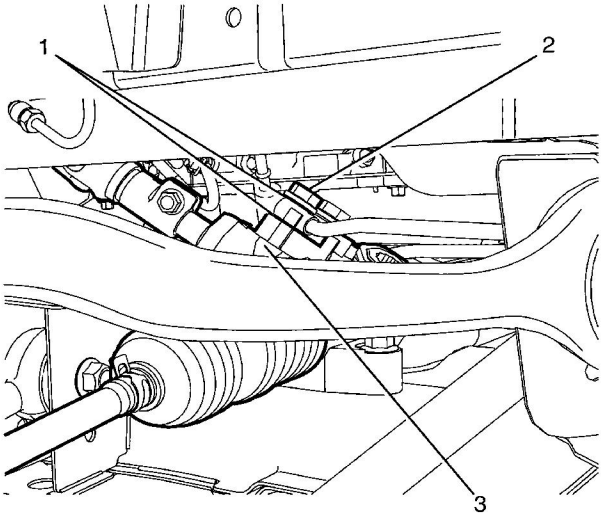


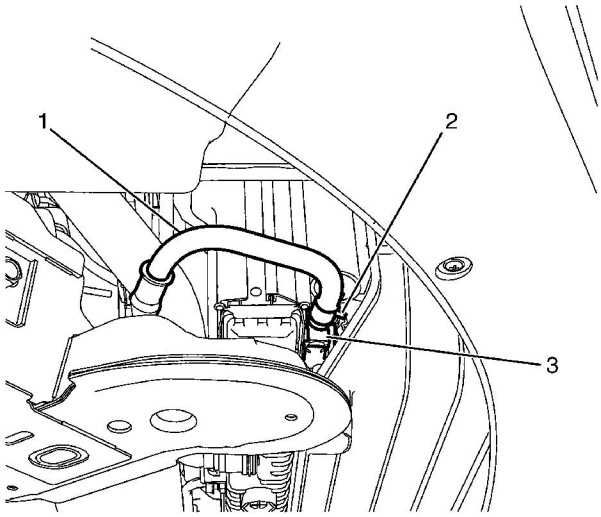
Important: The power steering gear (3) must be plugged to prevent the entry of foreign particles into the power steering system.

Important: Copper sealing washers (1) must be discarded after removal.

8. Remove the power steering gear outlet pipe/hose to power steering gear retaining banjo bolt (2) and copper sealing washers (1).

   Discard the washers.

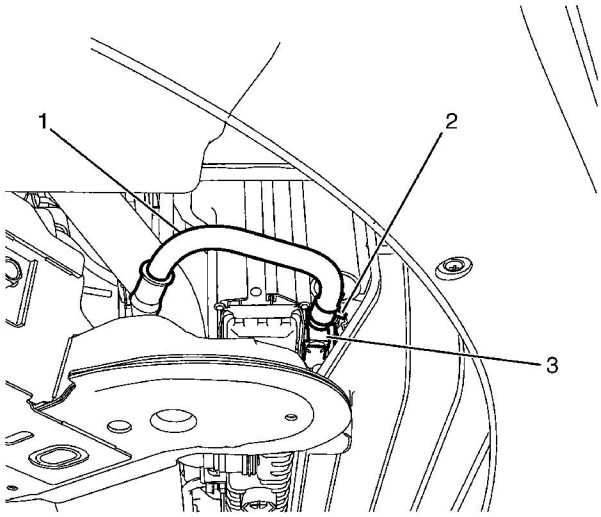
9. Plug the power steering gear (3).



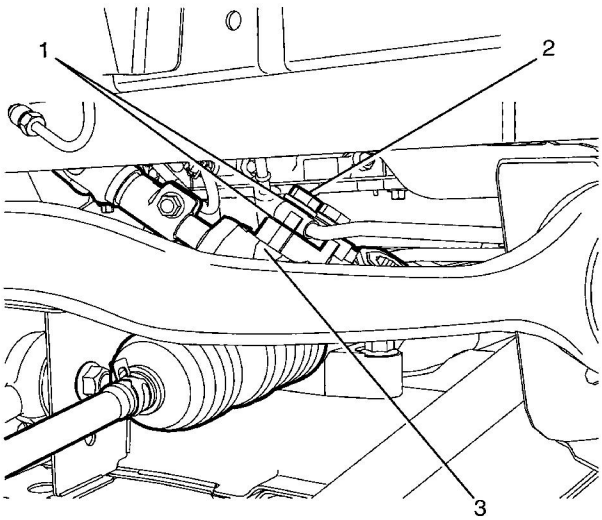
Important: The power steering cooler (3) must be plugged to prevent the entry of foreign particles into the power steering system.

10. Release the power steering gear outlet pipe/hose spring clamp (2) and disconnect the power steering gear outlet pipe/hose (1) from the power steering cooler (3).
11. Plug the power steering cooler (3).
12. Remove the power steering gear outlet pipe/hose (1).

Installation Procedure



1. Install the power steering gear outlet pipe/hose (1).
2. Remove the plug from the power steering cooler (3).
3. Release the power steering gear outlet pipe/hose spring clamp (2) and connect the power steering gear outlet pipe/hose (1) to the power steering cooler (3).



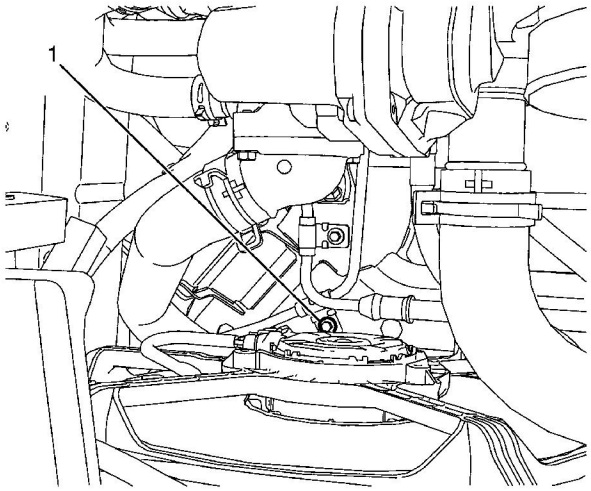
4. Remove the plug from the power steering gear (3).

Caution: Refer to Fastener Caution in the Preface section.

5. Install the power steering gear outlet pipe/hose to power steering gear retaining banjo bolt (1) and NEW copper sealing washers (2).

Tighten
Tighten the banjo bolt to 58 N·m (43 lb ft).

6. Remove the container from under the vehicle.
7. Install the engine splash shield. Refer to Engine Splash Shield Replacement.
8. Install the front air deflector. Refer to Front Air Deflector Replacement.
9. Remove the safety stands.
10. Lower the vehicle to the ground.



11. Install the power steering gear outlet pipe/hose bracket to subframe retaining bolt (1).

Tighten
Tighten the bolt to 9 N·m (80 lb in).

12. Install the engine dress cover. Refer to Engine Cover Replacement.
13. Remove the air inlet duct. Refer to Air Cleaner Inlet Duct Replacement.

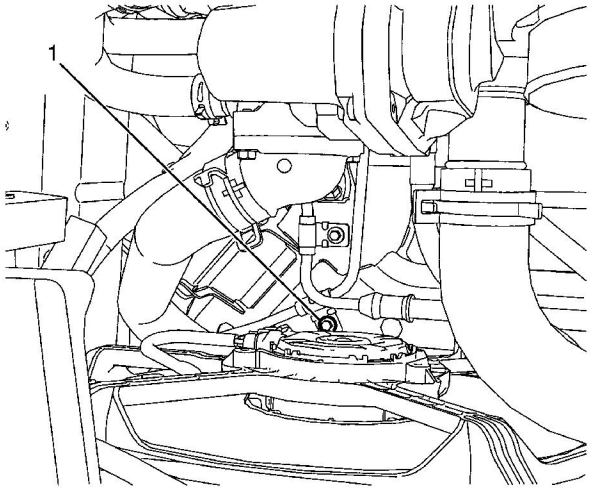
Caution: When adding fluid or making a complete fluid change, always use the proper power steering fluid. Failure to use the proper fluid will cause hose and seal damage and fluid leaks.

14. Fill power steering fluid reservoir with fluid to the MAX level mark on the reservoir.
15. Bleed the power steering system. Refer to Power Steering System Bleeding.
16. Check for power steering fluid leaks.

Power Steering Gear Outlet Pipe/Hose Replacement (6.0L Engine)

Removal Procedure

1. Remove the engine dress cover. Refer to Engine Front Cover Replacement.
2. Remove the air intake duct. Refer to Air Cleaner Assembly Replacement.



3. Remove the power steering gear outlet pipe/hose bracket to subframe retaining bolt (1).

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

4. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
5. Install the engine splash shield. Refer to Engine Splash Shield Replacement.
6. Remove the front air deflector. Refer to Front Air Deflector Replacement.
7. Place a large suitable container under the vehicle.

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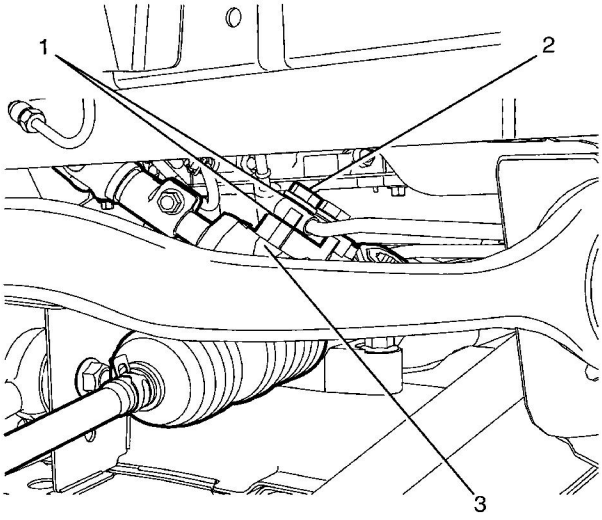


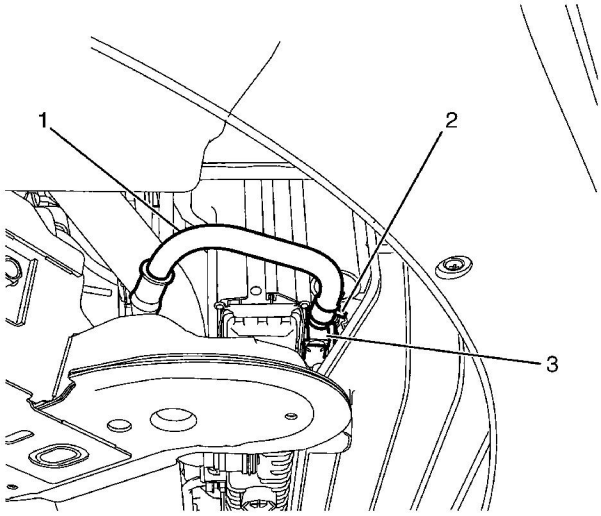
Important: The power steering gear (3) must be plugged to prevent the entry of foreign particles into the power steering system.

Important: Copper sealing washers (1) must be discarded after removal.

8. Remove the power steering gear outlet pipe/hose to power steering gear retaining banjo bolt (2) and copper sealing washers (1).

   Plug the power steering gear (3).

   Discard the washers.



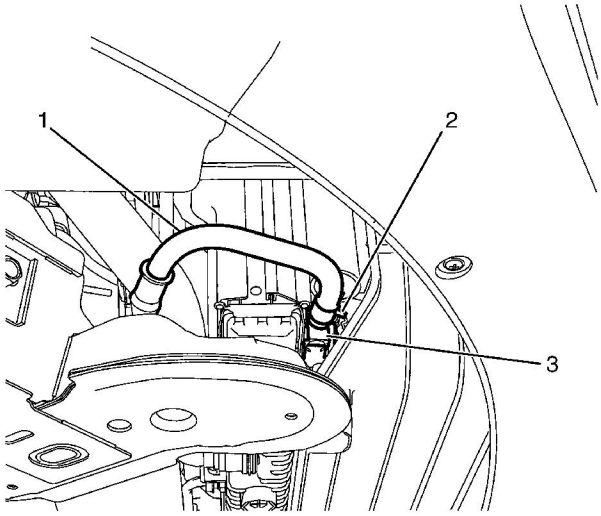
Important: The power steering cooler (3) must be plugged to prevent the entry of foreign particles into the power steering system.

9. Release the power steering gear outlet pipe/hose spring clamp (2) and disconnect the power steering gear outlet pipe/hose (1) from the power steering cooler (3).

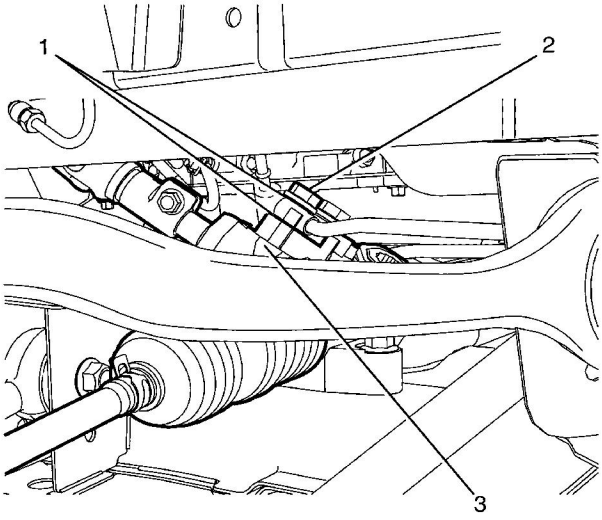
   Plug the power steering cooler (3).

10. Remove the power steering gear outlet pipe/hose (1).

Installation Procedure



1. Install the power steering gear outlet pipe/hose (1).
2. Remove the plug from the power steering cooler (3).
3. Release the power steering gear outlet pipe/hose spring clamp (2) and connect the power steering gear outlet pipe/hose (1) to the power steering cooler (3).



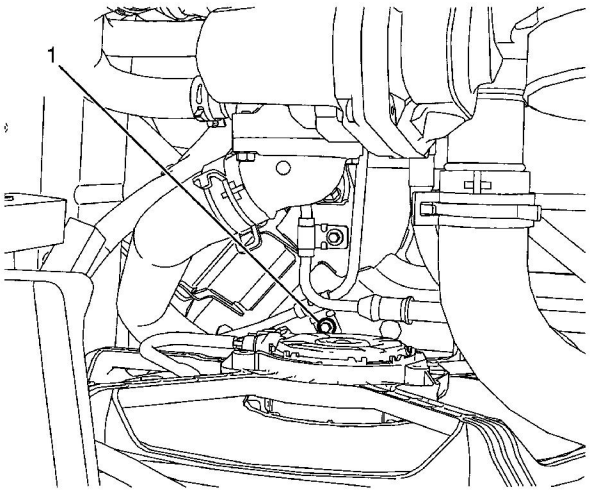
4. Remove the plug from the power steering gear (3).

Caution: Refer to Fastener Caution in the Preface section.

5. Install the power steering gear outlet pipe/hose to power steering gear retaining banjo bolt (2) and NEW copper sealing washers (1).

Tighten
Tighten the banjo bolt to 58 N·m (43 lb ft).

6. Remove the container from under the vehicle.
7. Install the engine splash shield. Refer to Engine Splash Shield Replacement.
8. Install the front air deflector. Refer to Front Air Deflector Replacement.
9. Remove the safety stands.
10. Lower the vehicle to the ground.



11. Install the power steering gear outlet pipe/hose bracket to subframe retaining bolt (1).

    Tighten
    Tighten the bolt to 9 N·m (80 lb in).

12. Install the air intake duct. Refer to Air Cleaner Assembly Replacement.
13. Install the engine dress cover. Refer to Engine Front Cover Replacement.

    Caution: When adding fluid or making a complete fluid change, always use the proper power steering fluid. Failure to use the proper fluid will cause hose and seal damage and fluid leaks.

14. Fill power steering fluid reservoir with fluid to the MAX level mark on the reservoir.
15. Bleed the power steering system. Refer to Power Steering System Bleeding.
16. Check for power steering fluid leaks.

Power Steering Pump Pulley Replacement

Special Tools

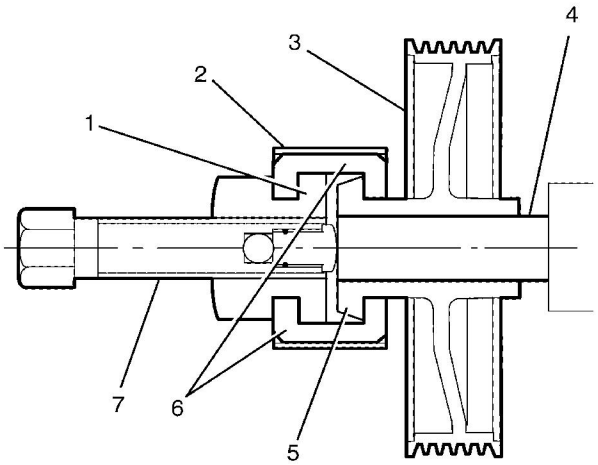
- 7185 Power Steering Pump Pulley Remover
- 7005 Power Steering Pump Pulley Installer

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Remove the power steering pump. Refer to Power Steering Pump Replacement.
2. Suitably support the power steering pump in a vice.



3. Lubricate the forcing screw (7) of 7185 .
4. Position the forcing screw (7) against the pulley shaft (4).

Note: The half jaws (6) must be fully engaged with the pulley flange (5) and the 7185 flange (1), the larger open end diameter (has chamfer and relief profile) engages with the pulley flange (5).

5. Install the half jaws (6) over the pulley flange (5) and the 7185 flange (1).

Note: The forcing screw (7) must be aligned with the pump axis.

6. Slide the retainer sleeve (2) over the half jaws, and hand tighten the forcing screw (7).

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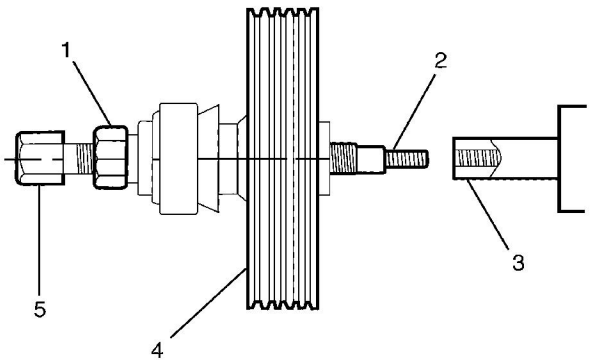
Note: Observe the orientation and the depth of the pulley (3) with reference to the original position, this will minimise the potential of incorrect pulley installation.

Note: Do not use power tools or exceed a torque of 90.0 N·m. If the pulley cannot be removed within this torque, remove the pulley using 7185 . If still unsuccessful, replace the complete power steering pump assembly.

7. Remove the pulley (3) from the pulley shaft (4) by progressively tightening the forcing screw (7).

Installation Procedure

1. Lubricate the thread of the 7005 forcing nut (1).



Note: Before installing the pulley (4) it must be properly aligned and orientated in relation to the pump shaft (3).

2. Slide the power steering pump pulley (4) over the 7005 forcing screw (2).
3. Install the 7005 forcing screw (2) into the pump shaft (3).

Note: The depth to which the pulley (4) is going to travel must be observed and maintained.

Note: Hold the forcing screw hex (5) while tightening the forcing nut (1).

4. Install the pulley (4) to the pump shaft (3) by progressively tightening the forcing nut (1).
5. Remove the 7005 from the pump shaft (3).
6. Remove the power steering pump from the vice.
7. Install the power steering pump. Refer to Power Steering Pump Replacement.

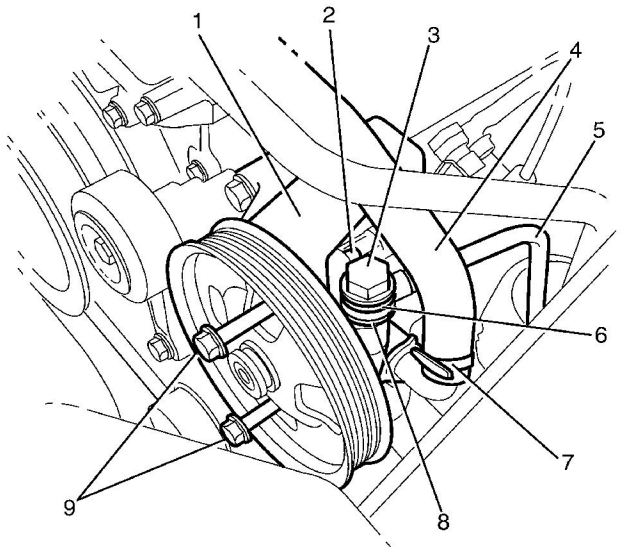
Power Steering Pump Replacement (3.6L Engine)

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Remove the engine dress cover. Refer to Engine Cover Replacement.
2. Remove the air inlet duct. Refer to Air Cleaner Inlet Duct Replacement.
3. Remove the upper section of the air box. Refer to Air Cleaner Assembly Replacement.
4. Remove the power steering drive belt. Refer to Drive Belt Replacement.
5. Place a large suitable container under the vehicle in order to collect draining power steering fluid.



Note: The copper sealing washers (6 and 8) must be discarded after removal.

6. Remove the power steering gear inlet pipe to power steering pump retaining banjo bolt (3) and copper sealing washers (6 and 8).

   Discard the washers.

7. Disconnect the power steering gear inlet pipe (5) from the power steering pump (2).

   Note: The power steering gear inlet pipe/hose (5) must be plugged to prevent the entry of foreign particles into the power steering system.

8. Plug the power steering gear inlet pipe/hose (5).

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9. Release the power steering fluid reservoir outlet pipe/hose spring clamp (7).

   Note: The power steering power steering fluid reservoir outlet pipe/hose (4) must be plugged to prevent the entry of foreign particles into the power steering system.

10. Disconnect the power steering fluid reservoir outlet pipe/hose (4) from the power steering pump (2).
11. Plug the power steering fluid reservoir outlet pipe/hose (4).

    Note: Bolts with micro-encapsulated thread sealant must be discarded after removal.

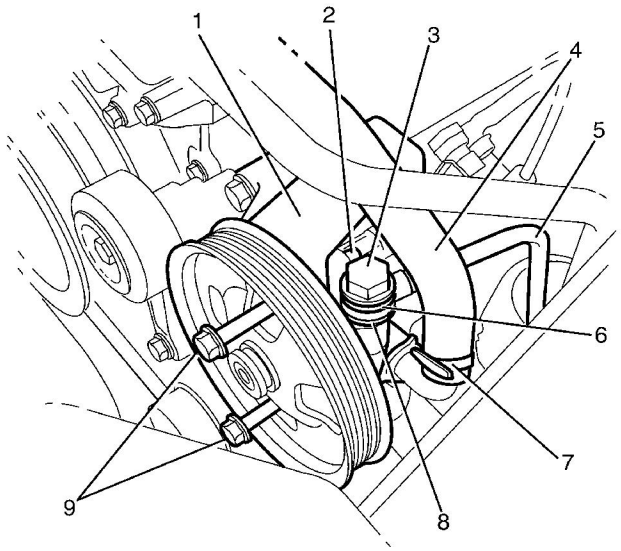
12. Remove the power steering pump to power steering pump bracket retaining bolts (9).

    Discard the bolts.

13. Remove the power steering pump (2) from the power steering pump bracket (1).
14. Remove the power steering pulley from the power steering pump. Refer to Power Steering Pump Pulley Replacement.

Installation Procedure

1. Install the power steering pulley to the power steering pump. Refer to Power Steering Pump Pulley Replacement.



2. Position the power steering pump (2) to the power steering pump bracket (1).

   Caution: Refer to Fastener Caution in the Preface section.

3. Install the NEW power steering pump to power steering pump bracket retaining bolts (9) and tighten to **27 N·m (20 lb ft)**.
4. Remove the plug from the power steering gear inlet pipe/hose (5).
5. Connect the power steering gear inlet pipe/hose (5) to the power steering pump (2).
6. Install the power steering gear inlet pipe to power steering pump retaining banjo bolt (3) and NEW copper sealing washers (6, 8) and tighten to **48 N·m (35 lb ft)**.

7. Remove the plug from the power steering fluid reservoir outlet pipe/hose (4).
8. Connect the power steering fluid reservoir outlet pipe/hose (4) to the power steering pump (2).
9. Tighten the power steering fluid reservoir outlet hose spring clamp (7).
10. Install the power steering drive belt. Refer to Drive Belt Replacement.
11. Install the upper section of the air box. Refer to Air Cleaner Assembly Replacement.
12. Install the air inlet duct. Refer to Air Cleaner Inlet Duct Replacement.

Caution: When adding fluid or making a complete fluid change, always use the proper power steering fluid. Failure to use the proper fluid will cause hose and seal damage and fluid leaks.

13. Fill power steering fluid reservoir with fluid to FULL level mark on the fluid reservoir.
14. Bleed the power steering system. Refer to Power Steering System Bleeding.
15. Check for power steering fluid leaks.
16. Remove the container from under the vehicle.
17. Install the engine dress cover. Refer to Engine Cover Replacement.

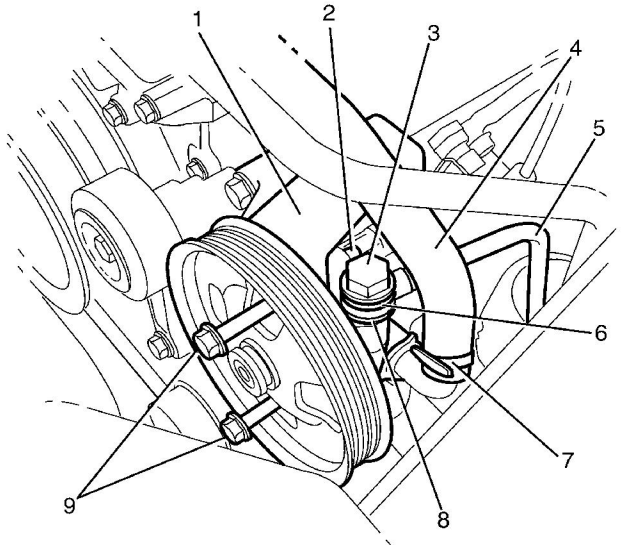
Power Steering Pump Replacement (6.0L Engine)

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Remove the engine dress cover. Refer to Engine Cover Replacement.
2. Remove the mass air flow (MAF) sensor. Refer to Mass Airflow Sensor/Intake Air Temperature Sensor Replacement.
3. Remove the upper section of the air box. Refer to Air Cleaner Assembly Replacement.
4. Remove the power steering drive belt. Refer to Drive Belt Replacement - Accessory.
5. Place a large suitable container under the vehicle in order to collect draining power steering fluid.



Note: The power steering gear inlet pipe (5) must be plugged to prevent the entry of foreign particles into the power steering system.

Note: The copper sealing washers (6 and 8) must be discarded after removal.

6. Remove the power steering gear inlet pipe to power steering pump retaining banjo bolt (3) and copper sealing washers (6 and 8).

   Plug the power steering gear inlet pipe (5).

   Discard the washers.

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7. Disconnect the power steering gear inlet pipe (5) from the power steering pump (2).
8. Release the power steering fluid reservoir outlet hose spring clamp (7).

Note: The power steering power steering fluid reservoir outlet hose (4) must be plugged to prevent the entry of foreign particles into the power steering system.

9. Disconnect the power steering fluid reservoir outlet hose (4) from the power steering pump (2).

   Plug the power steering fluid reservoir outlet hose (4).

   Note: Bolts with micro-encapsulated thread sealant must be discarded after removal.

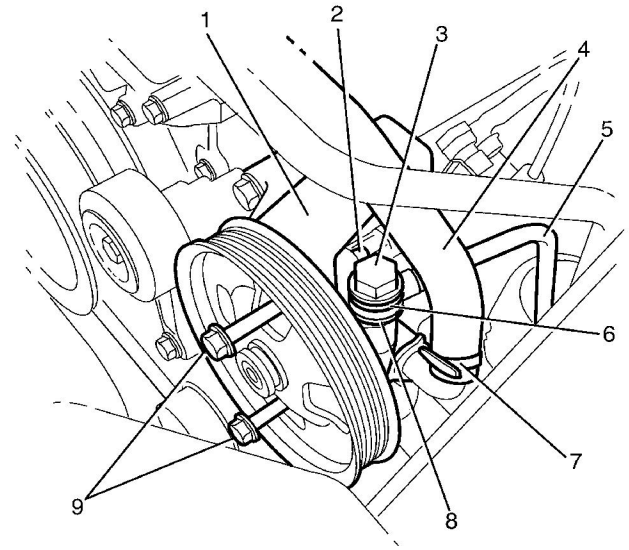
10. Remove the power steering pump to power steering pump bracket retaining bolts (9).

    Discard the bolts.

11. Remove the power steering pump (2) from the power steering pump bracket (1).
12. Remove the power steering pulley from the power steering pump. Refer to Power Steering Pump Pulley Replacement.

Installation Procedure

1. Install the power steering pulley to the power steering pump. Refer to Power Steering Pump Pulley Replacement.



2. Install the power steering pump (2) to the power steering pump bracket (1).

   Caution: Refer to Fastener Caution in the Preface section.

3. Install the NEW power steering pump to power steering pump bracket retaining bolts (9) and tighten to **27 N·m (22 lb ft)**.
4. Remove the plug from the power steering gear inlet pipe (5).

5. Connect the power steering gear inlet pipe/hose (5) to the power steering pump (2).
6. Install the power steering gear inlet pipe to power steering pump retaining banjo bolt (3) and NEW copper sealing washers (6,8) and tighten to **48 N·m (35 lb ft)**.
7. Remove the plug from the power steering fluid reservoir outlet hose (4).
8. Connect the power steering fluid reservoir outlet hose (4) to the power steering pump (2).
9. Tighten the power steering fluid reservoir outlet hose spring clamp (7).
10. Install the power steering drive belt. Refer to Drive Belt Replacement - Accessory.
11. Install the mass air flow (MAF) sensor. Refer to Mass Airflow Sensor/Intake Air Temperature Sensor Replacement.
12. Install the upper section of the air box. Refer to Air Cleaner Assembly Replacement.

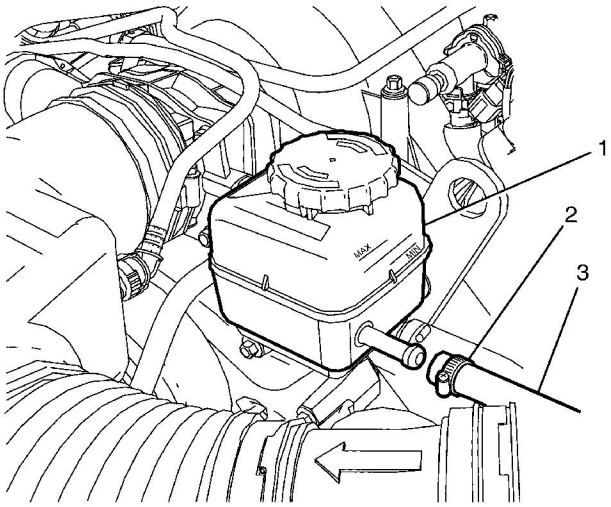
Caution: When adding fluid or making a complete fluid change, always use the proper power steering fluid. Failure to use the proper fluid will cause hose and seal damage and fluid leaks.

13. Fill power steering fluid reservoir with fluid to FULL level mark on the fluid reservoir.
14. Bleed the power steering system. Refer to Power Steering System Bleeding.
15. Check for power steering fluid leaks.
16. Remove the container from under the vehicle.
17. Install the engine dress cover. Refer to Engine Cover Replacement.

Power Steering System Flushing

Important: Do not reuse drained power steering fluid regardless of appearance or condition.

1. Raise and support the front of the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Place a large suitable container under the power steering fluid reservoir inlet connection in order to collect draining fluid.
3. Clean the area surrounding the fluid reservoir cap.



4. Release the power steering fluid reservoir inlet pipe/hose spring clamp (2) and disconnect the power steering fluid reservoir inlet pipe/hose (3) from the power steering fluid reservoir (1).
5. Plug the power steering fluid reservoir (1).

Important:

- This step may require 4 L (3.5 qt) of power steering fluid until the draining fluid appears clear.
- Do not allow the power steering fluid level in the fluid reservoir to drop below MAX while the engine is running.
- Use approved new power steering fluid from a sealed container. For fluid specifications refer to Fluid and Lubricant Recommendations.

6. Run the engine at idle while maintaining the fluid level at MAX in the reservoir, until the fluid draining from the power steering fluid reservoir Inlet hose is clean and free from debris.
7. Turn the engine OFF.

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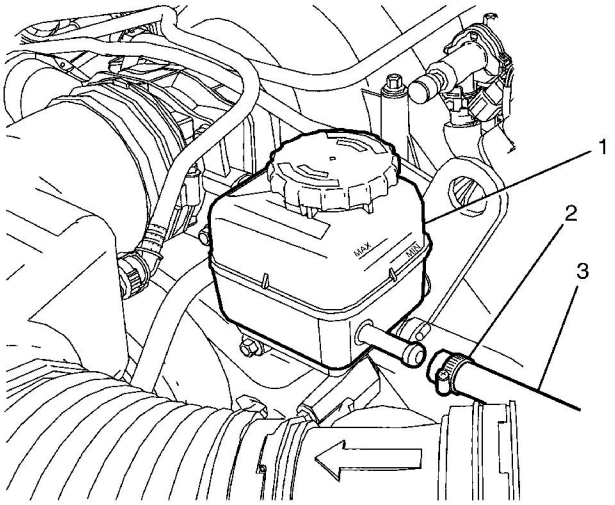


8. Remove the plug from power steering fluid reservoir.
9. Release the power steering fluid reservoir inlet pipe/hose spring clamp (2) and connect the power steering fluid reservoir inlet pipe/hose (3) to the power steering fluid reservoir (1).
10. Remove the container.
11. Check the power steering fluid. Refer to Checking and Adding Power Steering Fluid.
12. Run the engine at idle for approximately 15 minutes.
13. Inspect the power steering fluid for the following indications of contamination:
    - Milky fluid - water
    - Brown fluid - burnt
    - Plastic debris or dirt chunks
14. If the fluid is contaminated, repeat steps 3 - 12.
15. Clean any spilt fluid.
16. Bleed the power steering system. Refer to Power Steering System Bleeding.

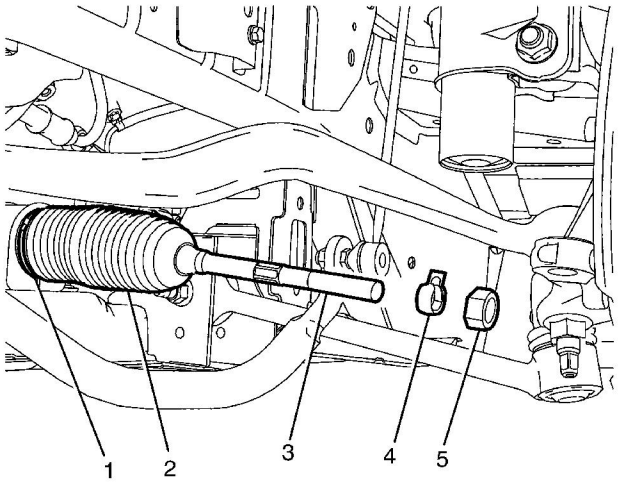
Steering Gear Boot Replacement

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the front wheel. Refer to Tire and Wheel Removal and Installation.
3. Remove the tie rod end. Refer to Steering Linkage Outer Tie Rod Replacement.



Note:

Note the number of turns required to remove the tie rod end lock nut (5).

4. Remove the tie rod end lock nut (5) from the tie rod (3).

Note: The tie rod boot to tie rod retaining clamp (4) is a single use part and must be discarded after removal.

5. Remove the tie rod boot to tie rod retaining clamp (4).

Discard the clamp.

Note:

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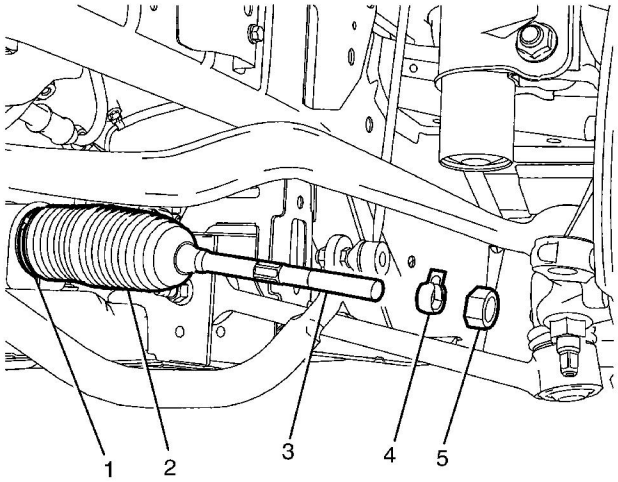
The tie rod boot to steering gear housing clamp (1) is a single use part and must be discarded after removal.

6. Remove the tie rod boot to steering gear housing clamp (1).

   Discard the clamp.

7. Remove the tie rod boot (2) from the tie rod (3).

Installation Procedure



1. Install the tie rod boot (2) to the tie rod (3).
2. Install the NEW tie rod boot to steering gear housing clamp (1).
3. Install the NEW tie rod boot to tie rod retaining clamp (4).

Note:

The tie rod end lock nut (5) must be installed rotating the same number of turns as recorded during removal and aligned with the mark previously made on the tie rod (3).

4. Install the tie rod end lock nut (5) to the tie rod (3).
5. Install the tie rod end. Refer to Steering Linkage Outer Tie Rod Replacement.
6. Install the front wheel. Refer to Tire and Wheel Removal and Installation.
7. Remove the safety stands.
8. Lower the vehicle to the ground.
9. Bounce the vehicle several times to settle the suspension.
10. Check and adjust the wheel alignment. Refer to Wheel Alignment Measurement.

Caution: Refer to Fastener Caution in the Preface section.

11. Tighten the tie rod end lock nut (5).

Tighten
Tighten the nut to 50 N·m (37 lb ft).

Steering Linkage Outer Tie Rod Replacement

Special Tools

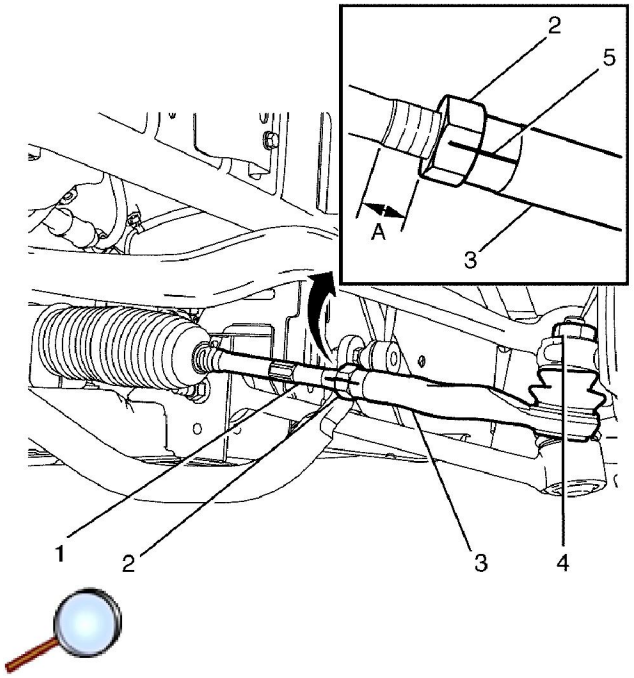
J-42188-B

Removal Procedure

Warning: Refer to Safety Glasses Warning in the Preface section.

Danger: To avoid any vehicle damage, serious personal injury or death when major components are removed from the vehicle and the vehicle is supported by a hoist, support the vehicle with jack stands at the opposite end from which the components are being removed and strap the vehicle to the hoist.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the front wheel. Refer to Tire and Wheel Removal and Installation.



Note: Make reference markings on the tie rod end lock nut (2) and the tie rod end (3) before loosening the tie rod end lock nut (2).

Note: Measure the distance of the thread (A) in relation to the tie rod end lock nut (2) before loosening the tie rod end lock nut (2).

3. Make a reference mark (5) parallel to the tie rod end lock nut (2) and the tie rod end (3).
4. Measure and make a note of the distance of the thread (A) in relation to the tie rod end lock nut (2).
5. Loosen the tie rod end lock nut (2) half a turn.

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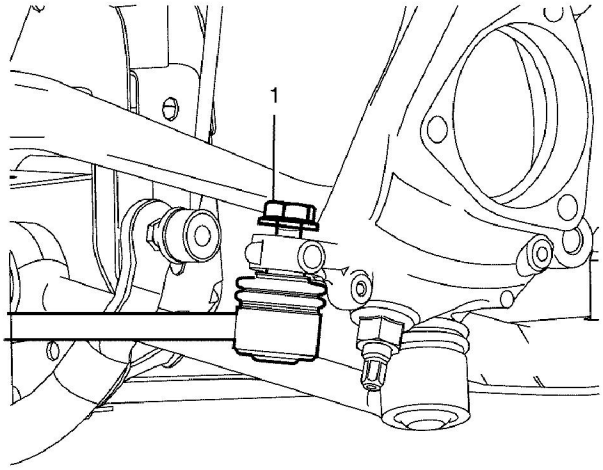
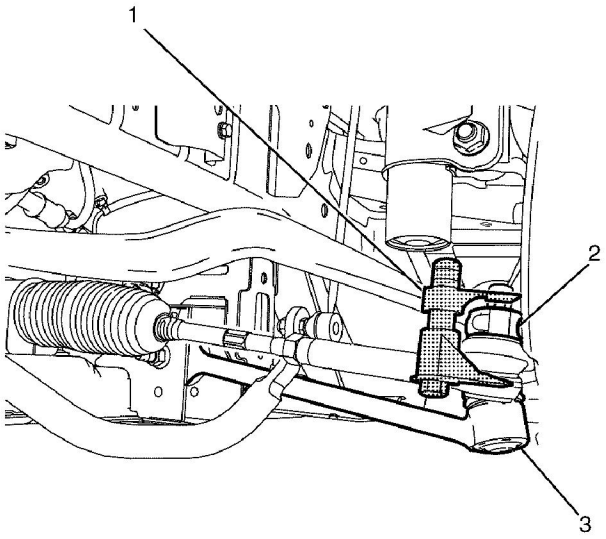
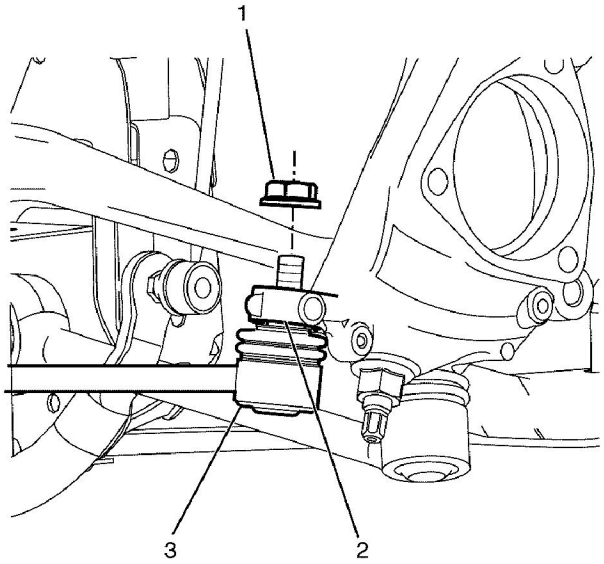


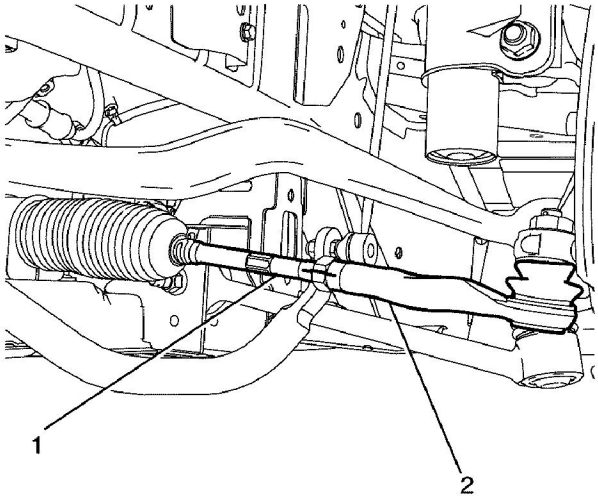
6. Loosen the tie rod end to steering knuckle retaining nut (1) about two turns.



7. Disengage the tie rod (3) from the steering knuckle (2) using the J-42188-B (1).

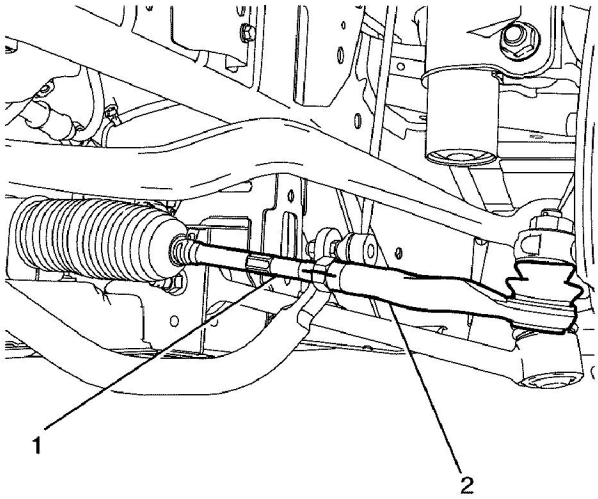


8. Remove and discard the tie rod end to steering knuckle retaining nut (1).
9. Separate the tie rod end (3) from the steering knuckle (2).

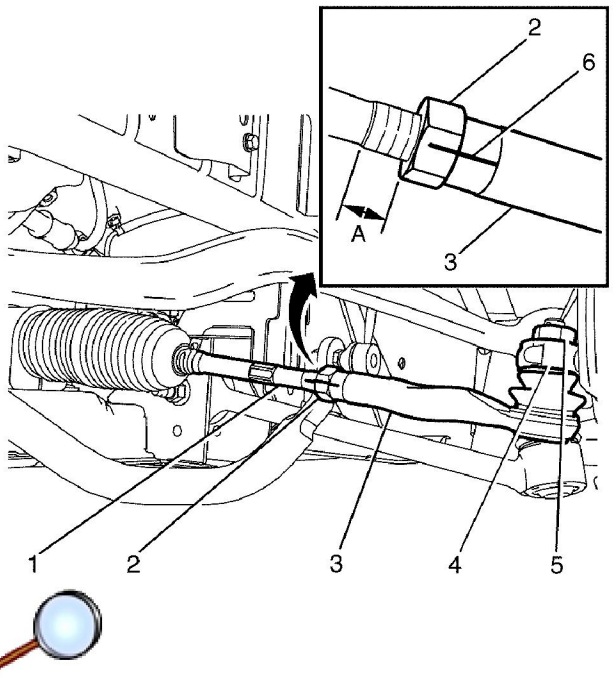


10. Remove the tie rod end (2) from the steering gear assembly (1).

Installation Procedure



1. Install the tie rod end (2) to the steering gear assembly (1).



Note: To minimise the wheel alignment procedure the tie rod end (3) must be installed the distance (A) as was noted in the removal procedure.

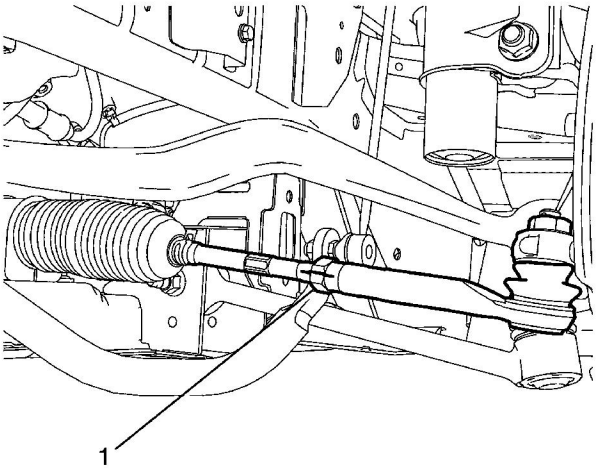
Note: To minimise the wheel alignment procedure align the reference mark (6) on the tie rod end (3) and the reference mark (6) on the tie rod end lock nut (2).

Note: The tie rod end lock nut (2) is not to be fully tightened at this stage.

2. Connect the tie rod end (3) to the steering gear assembly (1)
3. Connect the tie rod end (3) to the steering knuckle (4).

Caution: Refer to Fastener Caution in the Preface section.

4. Install the NEW tie rod end to steering knuckle retaining nut (5) and tighten to 70 N·m (52 lb ft).
5. Install the front wheel. Refer to Tire and Wheel Removal and InstallationTire and Wheel Removal and Installation.
6. Lower the vehicle.
7. Bounce the vehicle several times to settle the suspension.
8. Check and adjust the wheel alignment. Refer to Wheel Alignment Measurementin Wheel Alignment.



9. Tighten the tie rod end lock nut (1) to 50 N·m (37 lb ft).